

ABSTRACT

An internal combustion engine having an oil drainback passage and integral check valve. The oil drainback passage allows the flow of oil from the valve box to the crankcase of the engine during normal operation and prevents the backwards flow of oil from the crankcase to the valve box when high pressures exist in the crankcase or if the engine is operated at elevated angles. The oil drainback passage is formed by a bore through a cylinder wall of the crankcase and a bore through the cylinder head. The check valve includes a cavity within the cylinder wall of the crankcase, located at the end of the bore in the cylinder wall where it meets the bore in the cylinder head, and a check ball disposed within the cavity. During normal operation, the check ball floats within the cavity and allows the flow of oil through the oil drainback passage back to the crankcase. If high crankcase pressures exist, or if the engine is operated at an elevated angle, the check ball will seat against the end of the bore in the cylinder head and prevent the backward flow of oil through the drainback passage to the valve box.